

## **AMENDMENTS TO THE CLAIMS:**

The following listing of claims will replace all prior versions and listings of claims in this divisional application:

## **LISTING OF CLAIMS:**

Claim 1. (Original) A method of fabricating a SOI substrate, comprising:  
sequentially forming a first semiconductor layer, a second semiconductor layer and a buried oxide layer on a front surface of a semiconductor substrate;  
forming an etch stopping layer on a front surface of a supporting substrate;  
contacting the etch stopping layer with the buried oxide layer to bond the semiconductor substrate to the supporting substrate; and  
selectively removing the semiconductor substrate and the first semiconductor layer to expose the second semiconductor layer.

Claim 2. (Original) The method as claimed in claim 1, wherein the first semiconductor layer is a porous semiconductor epitaxial layer.

Claim 3. (Original) The method as claimed in claim 1, wherein the etch stopping layer is formed of a silicon nitride layer.

Claim 4. (Original) The method as claimed in claim 1, wherein the first semiconductor layer is a bubble layer.

Claim 5. (Original) The method as claimed in claim 1, further comprising a step of forming a buffer oxide layer between the supporting substrate and the etch stopping layer.

Claim 6. (Original) A method of fabricating a SOI integrated circuit, comprising:

preparing a SOI substrate having a first conductivity type supporting substrate, an etch stopping layer stacked on the supporting substrate, a buried oxide layer stacked on the etch stopping layer, and a semiconductor layer stacked on the buried oxide layer;

forming a device isolation layer at a predetermined region of the semiconductor layer to define first and second active regions;

continuously dry-etching the device isolation layer and the buried oxide layer to form first and second preliminary holes exposing the etch stopping layer;

wet-etching the etch stopping layer exposed by the first and second preliminary holes to form first and second holes exposing the supporting substrate;

growing first and second semiconductor epitaxial layers in the first and second holes, respectively;

forming first and second conductivity type pick-up regions at the surfaces of the first and second semiconductor epitaxial layers, respectively; and

forming NMOS and PMOS transistors at the first and second active regions, respectively.

Claim 7. (Original) The method as claimed in claim 6, wherein the first and second conductivity types are p-type and n-type, respectively.

Claim 8. (Original) The method as claimed in claim 7, wherein the first conductivity type pick-up region is simultaneously formed with source/drain regions of the PMOS transistor, and the second conductivity type pick-up region is simultaneously formed with source/drain regions of the NMOS transistor.

Claim 9. (Original) The method as claimed in claim 6, wherein the first and second conductivity types are n-type and p-type, respectively.

Claim 10. (Original) The method as claimed in claim 9, wherein the first conductivity type pick-up region is simultaneously formed with source/drain regions of the NMOS transistor, and the second conductivity type pick-up region is simultaneously formed with source/drain regions of the PMOS transistor.

Claim 11. (Original) The method as claimed in claim 6, wherein the etch stopping layer is formed of a material layer having an etch selectivity with respect to the buried oxide layer and the device isolation layer.

Claim 12. (Original) The method as claimed in claim 11, wherein the etch stopping layer is formed of a silicon nitride layer.

Claim 13. (Original) The method as claimed in claim 6, further comprising forming a buffer oxide layer between the supporting substrate and the etch stopping layer, wherein the first and second holes are formed by continuously wet-etching the etch stopping layer and the buffer oxide layer.

Claim 14. (Original) The method as claimed in claim 6, further comprising selectively forming a metal silicide layer on the pick-up regions, a gate electrode and source/drain regions of the NMOS transistors, and a gate electrode and source/drain regions of the PMOS transistors.

Claim 15. (Original) The method as claimed in claim 7, further comprising:

forming an interlayer insulation layer on the entire surface of the resultant structure where the NMOS and PMOS transistors are formed; and

forming a first interconnection electrically connected with the first conductivity type pick-up region and a second interconnection electrically connected with the second conductivity type pick-up region on the interlayer insulation layer.

Claim 16. (Original) The method as claimed in claim 15, further comprising forming an input pad connected with the second interconnection on the interlayer insulation layer, wherein the second interconnection is electrically connected with the gate electrodes of the NMOS and PMOS transistors.

Claim 17. (Original) A method of fabricating a SOI integrated circuit, comprising:

preparing a SOI substrate having a first conductivity type supporting substrate, an etch stopping layer stacked on the supporting substrate, a buried oxide layer stacked on the etch stopping layer, and a semiconductor layer stacked on the buried oxide layer;

forming a device isolation layer at a predetermined region of the semiconductor layer to define first and second active regions;

continuously dry-etching the device isolation layer and the buried oxide layer to form first and second preliminary holes exposing the etch stopping layer;

forming a first conductivity type pick-up region at the supporting substrate below the etch stopping layer exposed by the first preliminary hole;

forming a second conductivity type pick-up region at the supporting substrate below the etch stopping layer exposed by the second preliminary hole; and

forming NMOS and PMOS transistors at the first and second active regions, respectively.

Claim 18. (Original) The method as claimed in claim 17, wherein the first and second conductivity types are p-type and n-type, respectively.

Claim 19. (Original) The method as claimed in claim 17, wherein the first and second conductivity types are n-type and p-type, respectively.

Claim 20. (Original) The method as claimed in claim 17, wherein the etch stopping layer is formed of a material layer having an etch selectivity with respect to the buried oxide layer and the device isolation layer.

Claim 21. (Original) The method as claimed in claim 20, wherein the etch stopping layer is formed of a silicon nitride layer.

Claim 22. (Original) The method as claimed in claim 17, further comprising forming a buffer oxide layer between the supporting substrate and the etch stopping layer.

Claim 23. (Original) The method as claimed in claim 17, further comprising selectively forming a metal silicide layer on the first conductivity type pick-up region, the second conductivity type pick-up region, a gate electrode and source/drain regions of the NMOS transistors, and a gate electrode and source/drain regions of the PMOS transistors.

Claim 24. (Original) The method as claimed in claim 18, further comprising:

forming an interlayer insulation layer on the entire surface of the resultant structure where the NMOS and PMOS transistors are formed; and

forming a first interconnection electrically connected with the first conductivity type pick-up region and a second interconnection electrically connected with the second conductivity type pick-up region on the interlayer insulation layer.

Claim 25. (Original) The method as claimed in claim 24, further comprising forming an input pad connected with the second interconnection on the interlayer insulation layer, wherein the second interconnection is electrically connected with the gate electrodes of the NMOS and PMOS transistors.

Claims 26-41. (Cancelled)